



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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July 16, 2001

TO:

THRU: Stephen J. Demczak, Reclamation Specialist, Team Lead *Inf 58P*

FROM: Susan M. White, Senior Reclamation Biologist *SMW*

RE: Dugout and Pace Canyon's Minor Exploration, Canyon Fuel Company, Dugout Mine, C [REDACTED] 01B

## SUMMARY:

The Division received a Notice of Intent to conduct exploration for the Dugout Mine on June 1, 2001. The proposed exploration is on fee land with state coal within the Dugout Mine permit area. Three drill holes, DT-1, DT-2, and DT-3 require Division review of the NOI. Drill hole DT-1 is scheduled to be drilled in 2001. Drill holes DT-2 and DT-3 are scheduled to be drilled in the summer of 2002.

## TECHNICAL ANALYSIS:

### COAL EXPLORATION

### OPERATIONAL STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-100.

#### Analysis:

##### Biology

Minimal vegetation information is provided in the exploration Notice of Intent (NOI). A statement is given that the vegetation in the exploration area is dominated by pinyon-juniper, mountain shrubs, sagebrush-grass, conifer-aspen, and ponderosa pine communities. The vegetation map in the Dugout Canyon Mining and Reclamation Plan (MRP) show that drill locations DT-1 and DT-2 are within the deciduous streambank vegetation type. The 6250 foot long road to DT-3 leaves the mixed conifer canyon bottom and traverse up the ridge line to a sagebrush community where the drill site is located (Dugout MRP, Vegetation Map).

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MINOR COAL EXPLORATION

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Drill sites DT-1 and DT-2 are located within 20 feet of the drainage. The drainage is considered intermittent, drying only during the summer months<sup>1</sup>. Pace Canyon drainage was monitored in 1978 and the Division's Electronic Water Database indicates the flow to be perennial that year. Pace Canyon appears to be a deep drainage within a well developed riparian zone.

The NOI states that because the drill holes are above 7,400 feet no threatened or endangered plant or animal species are believed to occur. No studies or authorities are cited with this statement. The results of the Mexican spotted owl survey must be provided as well as a reference from a qualified professional of no finding.

Raptor inventory data is not provided. The NOI commits to no drilling until after July 15 to avoid the raptor nesting period. The area is within critical mule deer summer range, but not within the critical fawning period.

The land use is grazing, logging, and wildlife habitat. Although, I have never visited Pace Canyon, visits to adjacent areas show heavy grazing and extensive road building from logging operations.

**Topsoil**

Only general soils information is provided in the NOI. The applicant does commit to removing topsoil and vegetation, storing, protecting, and replacing the soil and vegetation during reclamation. The Division has not required operators to remove the soil on flat road accesses but simply to rip the soil deeply at reclamation.

The road to DT-3 is 6000 feet long and will require cut and fills to build the road. The NOI requires greater detail on the methods and depth of removal, storage, protection, and redistribution of topsoil on this road to assure revegetation success.

**Findings:**

The information provided in the proposed Notice of Intent is not considered adequate to meet the requirements of this section. Prior to approval, the operator must provide the following in accordance with:

**R645-202-231**, the NOI must contain a reference to a study or statement from a qualified professional of no threatened or endangered plants or animals in the drilling area.

**R645-202-233**, the NOI must describe the methods and depth of removal, storage, protection, and redistribution of topsoil for DT-3.

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<sup>1</sup>Phone conversation with Mike Stevenson, ARCH on July 12, 2001.

## RECLAMATION STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-200.

### Analysis:

#### Revegetation

After topsoil replacement, the site will be lightly roughened and then seeded. The Division recommends the use of extreme surface roughening. Extreme roughening reduces or eliminates surface water runoff and retains the water on site for seed germination and plant growth. In addition, it greatly reduces the occurrence of off-road vehicle vandalism.

The seed mixture to be applied has three introduced species, 2 grasses and 1 forb. No justification has been provided for use of the introduced species as required. The following seed mixture is recommended.

<u>Species</u>	<u>PLS lbs/Acre</u>
Western wheatgrass ( <i>Agropyron smithii</i> )	2
Bluebunch wheatgrass ( <i>Agropyron spicatum</i> )	2
Indian ricegrass ( <i>Oryzopsis hymenoides</i> )	2
Thickspike wheatgrass ( <i>Agropyron lanceolatus</i> )	2
Kentucky bluegrass ( <i>Poa pratensis</i> )	0.5
Northern sweetvetch ( <i>Hedysarum boreale</i> )	1
Pacific aster ( <i>Aster chilensis</i> )	0.1
Fourwing saltbush ( <i>Atriplex canescens</i> )	2
Bitterbrush ( <i>Purshia tridentata</i> )	2
<b>Total</b>	<b>13.6</b>

The road cut to DT-3 traverses a steep, south facing hillside. Erosion control and revegetation will be more difficult in this area. Greater detail and commitments to erosion control, surface roughening, and topsoil salvage and redistribution is needed to demonstrate that the area can meet reclamation standards.

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MINOR COAL EXPLORATION

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**Findings:**

The information provided in the proposed Notice of Intent is not considered adequate to meet the requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

**R645-202-242.100**, the seed mixture proposed in the NOI contains species not native to the area. Justification needs to be provided to justify their use or the seed mixture must be changed. A suggested seed mixture is provided in this review.

**R645-202-242.200**, the methods used to construct and reclaim the road to DT-3 is not sufficient to predict that the reclaimed area will be capable of stabilizing the soil surface from erosion. Greater detail and commitments to erosion control, topsoil, and surface roughening is required.

**RECOMMENDATIONS:**

Prior to approval the requirements of R645-202-231 and -202-233 and R645-202-242.100 and -202-242.200 must be addressed.